

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Currently amended) A dehydrated composition, useful for mammalian therapy, comprising:
substantially shelf-stable ~~freeze-dried~~ freeze-dried, resting platelets selected from the mammalian species for which therapy is intended, the platelets being effectively loaded with trehalose ~~by fluid phase endocytosis~~ to preserve biological properties during freeze-drying and rehydration, wherein the platelets are rehydratable so as to ~~have a normal response to at least one agonist~~ respond to thrombin by clot formation within about three minutes at 37° C.
2. (Currently amended) The dehydrated composition as in Claim 1 wherein the amount of trehalose loaded inside the freeze-dried blood platelets is from about ~~10mM~~ 10 mM to about 50 mM.
- 3-5. Canceled.
6. (Original) The dehydrated composition as in Claim 1 wherein the composition is substantially shelf stable at ambient temperatures.
7. (Currently amended) The dehydrated composition as in Claim 1 wherein the effective loading includes incubating platelets at a temperature from ~~greater than about 25°C~~ about 30° C to about 40°C so as to uptake external trehalose ~~via fluid phase endocytosis~~.
8. (Original) The dehydrated composition as in Claim 1 wherein the platelets are human platelets.
9. (Original) The dehydrated composition as in Claim 1 wherein the freeze-dried platelets before freeze-drying are characterized by a homogenous distribution of trehalose therein of about 20 mM.

10. (Original) The dehydrated composition as in Claim 1 wherein moisture is in an amount not greater than about 5 weight percent.

11. (Original) The dehydrated composition as in Claim 1 further including a therapeutic agent selected from the group consisting of an antibiotic, an antifungal, a growth factor, and mixtures thereof.

12. (Currently amended) A therapeutic composition, comprising:
resting platelets effectively loaded with trehalose ~~by fluid-phase endocytosis~~ to preserve biological properties during freeze-drying and rehydration and having a homogeneously distributed concentration of a therapeutic agent therein, the platelets ~~determinable to have a normal response to thrombin~~ able to respond to thrombin by clot formation within about three minutes at 37° C.

13. Canceled.

14. (Original) The therapeutic composition as in Claim 12 wherein the therapeutic agent includes an anti-thrombic agent, an antibiotic, an anti-mitotic agent or an anti-angiogenic agent.

15. (Currently amended) A hemostasis aid, comprising:
substantially shelf-stable, freeze-dried, resting platelets selected from the mammalian species for which therapy is intended, the platelets being effectively loaded with trehalose to preserve biological properties during freeze-drying and rehydration, wherein the platelets are rehydratable so as to have a normal response to at least one agonist; and,
a biocompatible matrix on which the platelets are carried.

16. (Original) The hemostasis aid as in Claim 15 wherein the platelets are coated on or impregnated in the matrix.

17. (Previously presented) The hemostasis aid as in Claim 15 wherein the matrix comprises a woven or non-woven bandage, wound dressing, or suture.

18-25. (cancelled)

26. (Currently amended) A therapeutic process of using a dehydrated composition, comprising:

providing freeze-dried, resting platelets selected from a mammalian species for which therapy is intended, the platelets being effectively loaded with trehalose to ~~preserve biological properties~~ be able, upon rehydration, to respond to thrombin by clot formation within about three minutes at 37° C; and,

applying the resting freeze-dried platelets to a wound or burn of the selected mammalian species.

27. (Original) The process as in Claim 26 wherein the freeze-dried platelets are carried on a biologically compatible matrix.

28. (Original) The process as in Claim 26 wherein the freeze-dried platelets are rehydrated prior to or upon application to the wound or burn.

29. (Original) The process as in Claim 26 wherein the freeze-dried platelets are prehydrated in moisture saturated air before application.

30. (Original) The process as in Claim 29 wherein the prehydrated, freeze-dried platelets are rehydrated following prehydration.

31. (Original) The process as in Claim 29 wherein the prehydration is conducted at about 37° C for between about one hour to about three hours.

32. (Original) The process as in Claim 29 wherein the prehydration is sufficient to bring the water content of the freeze-dried platelets to between about 35 weight percent to about 50 weight percent.

33. (Previously presented) The hemostasis aid as in Claim 15 wherein said platelets being effectively loaded with trehalose by fluid phase endocytosis to preserve biological properties.

34. (Previously presented) The therapeutic process of Claim 26 wherein said platelets being effectively loaded with trehalose by fluid phase endocytosis to preserve biological properties.

35. (New) The dehydrated composition as in Claim 1 wherein the effective loading includes incubating platelets at a temperature from about 30° C to about 37°C so as to uptake external trehalose.

36. (New) The dehydrated composition as in Claim 1 wherein the effective loading includes incubating platelets at a temperature of about 37° C so as to uptake external trehalose.